

**LODI CITY COUNCIL
SPECIAL CITY COUNCIL MEETING
CARNEGIE FORUM, 305 WEST PINE STREET
TUESDAY, NOVEMBER 1, 2005**

A. CALL TO ORDER / ROLL CALL

The Special City Council meeting of November 1, 2005, was called to order by Mayor Beckman at 7:00 a.m.

Present: Council Members – Hansen, Hitchcock, Johnson, Mounce, and Mayor Beckman

Absent: Council Members – None

Also Present: City Manager King, City Attorney Schwabauer, and City Clerk Blackston

B. REGULAR CALENDAR

B-1 “Accept West Yost & Associates study for full implementation of Woodbridge Irrigation District Surface Water Supply”

Public Works Director Prima recalled that the Woodbridge Irrigation District (WID) water purchase was made nearly three years ago. Beginning in March 2006, the water can no longer be banked unless there is an extension to the contract.

Jim Yost, of West Yost & Associates, noted that Council would need to make a decision regarding whether to proceed with a recharge system, or to go forward with a surface water treatment plant. He explained that integration of groundwater and surface water is called a conjunctive use water supply system. He noted that drinking and wastewater regulations are consistently becoming more stringent. One of the primary problems being faced is the salt load in the effluent. He pointed out that it is easier to adjust a water treatment plant to comply with regulations than it is to adjust wells. In addition, if there are two different supplies, it increases the City’s ability to meet drought or other emergencies. Mr. Yost explained that, as agricultural land is converted to urban uses, the water rights that were held by the agricultural land are lost unless a way is found to make use of the water. Some communities have agreements with the irrigation districts where, as land gets annexed and urbanized, the water entitlements go to the urban area.

With the aid of an overhead presentation (filed), Mr. Yost reported that the groundwater underlying Lodi’s general plan area is estimated to be 12,000 acre feet. The groundwater basin is being over drafted by a significant amount and water levels are dropping one-third foot each year. Portions of the aquifer have contamination and several wells have treatment systems to remove the contaminants. Lodi’s water supply is currently provided from a water main grid and evenly placed well sites. To meet the demand, more wells will be needed in the future.

Mayor Pro Tempore Hitchcock asked how the City has been able to show adequate mitigation for new development if it has an insufficient supply of water.

Mr. Yost commented that recent laws have been adopted, which require cities to show how they can meet a 20-year demand before moving forward with new development.

Mr. Yost reported that the City purchased water from WID in 2002 under a 40-year term for 6,000 acre feet per year with a delivery schedule of March 1 through October 15 each year at a cost of \$1.2 million annually. The City is allowed to bank water up to 18,000 acre feet for a three-year period. There is a provision in the agreement that allows the City to purchase additional water from October 15 through April 30 at a reduced rate.

In reply to Council Member Johnson, Public Works Director Prima reported that there is a specified point in which WID gets a reduced allotment from the Mokelumne System. In those years, Lodi’s water would decrease from 6,000 acre feet to 3,000. The 3,000 acre feet can be banked and taken in a wetter year.

City Attorney Schwabauer reported that, beginning two years ago, the City has been requiring water rights agreements with new annexations.

Mr. Yost stated that the City will need to address the water demands of new development, define how much water they will need in the future, and determine how those demands will match up with the City's supply availability. Options for using the WID surface water include:

- Selling the water, as an immediate short-term solution to recoup some of the cost on an annual basis. West Yost & Associates has entered into discussions with interested buyers on a one-year sale basis. The price is dictated by the water year and water supply conditions. Presently, the price would be \$50 an acre foot or less. In a drought year, the price could be \$150 an acre foot.
- For a groundwater recharge project, the City would have to construct diversion structures off the WID system, raw water pipelines, and recharge basins. The unit cost ranges from \$90 to \$120 an acre foot additional cost to get the water into the ground. This cost is affected by land costs, percolation rate, and excavation costs. The supply would remain vulnerable to ongoing groundwater contamination issues. A potential site for recharge is south of Armstrong Road.
- Construct a water treatment plant and directly use the water. Facilities needed would include a diversion structure, a treatment plant, and distribution system improvements to get the treated water to customers. Cost estimates range from \$360 to over \$400 an acre foot. When ground and surface water is mixed there will be a variable supply quality. In addition, seasonally and geographically the water quality in the system would change. Disinfection with chlorine would be required. Some of the City's customers would be on groundwater part of the year and surface water part of the year. Costs are affected by sizing of the plant. The plant would likely be built in increments, the first of which would be the most expensive. Mr. Yost stated that the most efficient way to run a treatment plant is at a set rate year-round as a base supply and to pump off the groundwater wells to meet peaks in the summer.

In reference to the groundwater recharge option, Council Member Hansen expressed concern about loss of the water supply due to underground movement of the water further southward.

Mr. Yost believed that the proposed site would recover a large part of the water. He stated that new development is also planned for the area so if wells were placed there a large part, if not all, of the water would be extracted.

Mr. Prima explained that Lodi could not completely resolve the basin wide overdraft no matter what action it took. A recharge project would put water back into the basin that the City is drawing out of. The land at the potential recharge site is owned by the Micke Grove Trust. He reported that the City currently does not disinfect its groundwater; however, disinfection would be necessary if the City were to have a surface water treatment plant because the water would be commingled.

Mr. Yost recommended that the City begin recharging the water on an interim basis or sell some portion of it to recover part of the cost, with a long-term goal of treating the water and using it directly for supplying customers. In addition, he suggested that recycling be done by using effluent from the treatment plant for park irrigation, etc. and that the City negotiate with WID to get surface water on a year-round basis. Following a siting study for the surface water treatment plant, the environmental analysis and pre-design work would be done, and a treatment plant could be in place by early 2010. The Westside and Southwest Gateway developments are expected to have their environmental documentation and planning done by mid-2006 with design completed by 2007. If a treatment plant were in place by 2010, it would be one of the primary sources of water supply to meet their demands.

In reply to Mayor Pro Tempore Hitchcock, Mr. Prima estimated the water supply demands of the Westside and Southwest Gateway developments to be 1,400 acre feet.

Mr. Prima reported that it would cost approximately \$1 million a year to operate a water treatment plant. He presumed that initial construction of the plant would be financed by future development. He projected that water rates would have to be increased within three years if the City were to proceed with a treatment plant.

PUBLIC COMMENTS:

- Kevin Kauffman, General Manager of Stockton East Water District, explained that the Eastern Water Alliance is comprised of his Board of Directors, and managers of the North San Joaquin Water Conservation District, and the Central San Joaquin Water Conservation District. He stated that groundwater recharge has a lot of benefits in the short term. He suggested that Lodi collaborate with regional partners for a water treatment plant. He provided information related to the Farmington Groundwater Recharge Program, which was developed in cooperation with the Army Corp of Engineers and funded through the federal budget. The Corp of Engineers builds projects, conducts studies, monitors, and reports; however, the land cost, right of way issues, operating costs, and the cost of water, falls on the local sponsor (i.e. the Eastern Water Alliance). Mr. Kauffman stated that the Micke Grove site is excellent and it has been estimated that 20,000 to 30,000 acre feet of water could be put on the site annually. Studies indicate that the water does not move significantly and is found to "mound" in the short term. Locating new wells near the site would recover water that is mounding.

Mayor Pro Tempore Hitchcock asked Mr. Prima to provide an overall picture and specifics on the logistics of a recharge project, e.g. where the water is being taken out, what is being used, and what is reduced or increased elsewhere because of it.

In reply to Council Member Johnson, Mr. Kauffman reported that injection is not feasible at this time because of issues with the Central Valley Regional Water Quality Control Board and chlorination concerns.

Council Member Hansen expressed support for a water recharge project partnership on a short-term basis. If new development pays for a water treatment plant, then he felt it would be a potential long-term solution.

Mr. Prima estimated that it would cost \$8 million to \$10 million to get the City's tertiary treated wastewater from White Slough to the City for recycling purposes, e.g. landscape irrigation, toilet flushing, etc. He commented, however, that new development might pay for such a project. Staff anticipates a decrease in water consumption due to conservation once water metering is instituted. He noted that one option being considered was to build a non-potable water supply system that would take water out of the WID canal and irrigate some of the parks and basins in close proximity to the canal. He stated that a pilot water recharge project could be done on a small scale in 2006.

- Ed Steffani, General Manager of North San Joaquin County Water Conservation District, expressed enthusiasm for a water recharge project at the Micke Grove Trust area. He stated that it could be a local project if expediency were desired, rather than working with the Corp of Engineers.

Council Member Mounce expressed concern about Lodi's poor financial condition at this time and the limitations it causes when considering additional projects. She was opposed to moving forward without having an updated General Plan that identifies how a water treatment plant would be built.

In answer to Mayor Pro Tempore Hitchcock, Mr. Prima reported that the depth to groundwater in Lodi is at 50 feet. City wells are at 100 to 500 feet. Salinity is found at 800 to 1,000 feet.

- Dave Peterson, engineer with West Yost & Associates, stated that the recharge project as previously described would, in essence, create an underwater dam, which would bring the water levels under Lodi up and help the City reduce some of its well pumping costs, thus better stabilizing the groundwater basin under Lodi.

Mr. Prima reported that staff would return to Council at a regularly scheduled meeting in January to present a more specific plan and answer questions raised today. At that time, a formal response from WID will be available regarding extension of the contract.

Council Member Johnson stated that he needed more specific cost information on the options before he could make a decision.

Mayor Beckman favored a water recharge project and selling any WID water that cannot be banked.

Mayor Pro Tempore Hitchcock stated that she leaned toward the groundwater recharge option, so that the City's water would not have to be chlorinated.

C. ADJOURNMENT

There being no further business to come before the City Council, the meeting was adjourned at 8:47 a.m.

ATTEST:

Susan J. Blackston
City Clerk